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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _23 May 2007_.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-40_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-40_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Response to Amendment

1.   In response to the Office Action mailed February 23, 2007, applicant submitted

an amendment filed on May 23, 2007 in which the applicant traversed and requested

reconsideration.

Response to Arguments

2.   Applicant argues that Suhm cannot be viewed as teaching topically focused

language models selected by agent speech to recognize caller speech. However,

Suhm teaches statistical models that are used for topic detection can be trained to

detect specific quality aspects (column 20, lines 49-58). Therefore, Applicants

arguments are not persuasive.

Applicant further argues that Suhm et al. does not teach any agent speech

recognition derived input to language models employed to recognize caller speech.

However, Suhm teaches that a speech recognition system may be optionally included to

enable the program to run interactively in response to the caller's spoken words.

Besides, it is well known in the art of speech processing that a speech recognition

system has a signal processing module that takes the digitized samples and convert

them into a series of patterns. These patterns are then compared to a set of stored

models that have been constructed from the knowledge of acoustic language and

dictionaries (pg. 690 of Newton's Telecom Dictionary). Therefore, Applicants

arguments are not persuasive.

Applicant also argues that Suhm do not contemplate differentiating between speech of the first speaker and speech of the second speaker with speech received on the first channel and identifying speech of the second speaker with speech received on the second channel. Applicants arguments are persuasive, but are moot in view of new grounds of rejections.

Applicant also argues that Suhm et al. do not contemplate identifying a predetermined topic associated with an electronic form selected by call center personnel. Applicants arguments are persuasive, but are moot in view of new grounds of rejections.

Applicant further argues that Suhm wt al. cannot be viewed as having contemplated or having enable interruption detection. Applicants arguments are persuasive, but are moot in view of new grounds of rejections.

Applicant argues that speaker verification is a wholly different operation than speech recognition, and the use of the reference is respectfully challenged as not being directed toward the art speech recognition; the speaker model developed by Skerpac according to the teachings of Skerpac is the same person, so Skerpac cannot fairly be viewed as contemplating using speech recognition results of a first speaker to improve recognition of speech of a second speaker interacting with the first speaker. Claims 3-5 only discuss a first speaker. There is no mention of a second speaker. Besides, the primary reference teaches multiple speakers. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references.

See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800

F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4.   **Claims 1-2, 4, 21-22 and 24** are rejected under 35 U.S.C. 102(e) as being

anticipated by Chandler et al. (USPN 6,477,491), hereinafter referenced as Chandler.

Regarding **claims 1 and 21**, Chandler discloses a speech data mining system

and method, hereinafter referenced as a system for use in generating a rich

transcription having utility in call center management, comprising:

a speech differentiation module differentiating between speech of at least two

interacting speakers (speaker dependent voice recognition; column 2, lines 43-67 with

column 4, line 62 – column 5, line 19);

a speech recognition module (speech recognition) improving automatic

recognition of speech of a second speaker based on interaction of the second speaker

with a first speaker employed as a reference speaker (column 2, lines 43-67 and

column 4, lines 36-52); and

a transcript generation module (transcripts) generating a rich transcript based at

least in part on recognized speech of the second speaker (column 2, lines 43-67 with

column 4, lines 36-52).

Regarding **claims 2 and 22**, Chandler discloses a system wherein said speech

differentiation module is adapted to receive speech input from the first speaker on a first

channel, to receive speech input from the second speaker on a second channel, and to

differentiate between the first speaker and the second speaker by identifying speech of

the first speaker with speech received on the first channel (channel or line), and

identifying speech of the second speaker with speech received on the second channel

(column 2, lines 43-67 with column 6, lines 3-34).

Regarding **claims 4 and 24**, Chandler discloses a data mining system wherein

said speech recognition module is adapted to employ the first speaker as the reference

speaker based on availability of a speech model adapted to the first speaker (model;

column 2, lines 1-11).

5.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6.   **Claims 1-2, 4, 11, 21-22, 24 and 31** are *alternately* rejected under 35

U.S.C. 102(b) as being anticipated by Ortega et al. (USPN 6,332,122) hereinafter

referenced as Ortega.

Regarding **claims 1 and 21**, Ortega discloses a speech data mining system and

method, hereinafter referenced as a system for use in generating a rich transcription

having utility in call center management, comprising:

a speech differentiation module (speaker ID) differentiating between speech of at

least two interacting speakers (abstract with column 1, lines 13-40 with column 4, lines

35-57);

a speech recognition module (speech recognition) improving automatic

recognition of speech of a second speaker based on interaction of the second speaker

with a first speaker employed as a reference speaker (abstract with column 3, line 33 –

column 4, line 10); and

a transcript generation module (transcribing) generating a rich transcript based at

least in part on recognized speech of the second speaker (abstract with column 3, line

33 – column 4, line 10).

Regarding **claims 2 and 22**, Ortega discloses a system wherein said speech

differentiation module is adapted to receive speech input from the first speaker on a first

channel, to receive speech input from the second speaker on a second channel, and to

differentiate between the first speaker and the second speaker by identifying speech of

the first speaker with speech received on the first channel (channel), and identifying

speech of the second speaker with speech received on the second channel (abstract).

Regarding **claims 4 and 24**, Ortega discloses a data mining system wherein said

speech recognition module is adapted to employ the first speaker as the reference

speaker based on availability of a speech model adapted to the first speaker (model;

column 4, lines 11-20).

Regarding **claims 11 and 31**, Chandler discloses a data mining system wherein

said speech recognition module is adapted to extract context from a speech recognition

result of the first speaker (speech recognition), and to employ the context extracted from

the speech recognition result of the first speaker as context in a language model utilized

to assist in recognizing speech of the second speaker (model; column 1, line 62 –

column 2, line 14 and column 4, lines 11-48 with column 6, lines 12-53).

Claim Rejections - 35 USC § 103

7.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the ·
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

8.   **Claims 3, 5, 23 and 25** are rejected under 35 U.S.C. 103(a) as being

unpatentable over Chandler in view of Skerpac (PGPUB 2002/0104027).

Regarding **claims 3 and 23**, Chandler discloses a data mining system, but does not specifically teach a system wherein said speech recognition module is adapted to employ the first speaker as the reference speaker based on quality of the first channel being higher than quality of the second channel.

Skerpac discloses a system wherein said speech recognition module is adapted to employ the first speaker as the reference speaker based on quality of the first channel being higher than quality of the second channel (high quality acoustic channel; column 5, paragraph 0050), to meet high security requirements.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Chandler's system wherein said speech recognition module is adapted to employ the first speaker as the reference speaker based on quality of the first channel being higher than quality of the second channel, as taught by Skerpac, for robust security and intuitive privacy schemes and for protection from unauthorized users (column 6, paragraph 0053).

Regarding **claims 5 and 25**, Chandler discloses a data mining system, but does not specifically teach a system wherein speech differentiation module is adapted to use speech biometric.

Skerpac discloses a system wherein speech differentiation module is adapted to: use a speech biometric trained on speech of the first speaker to distinguish between speech of the first speaker and speech of another speaker (biometrics; column 2, paragraph 0011), to insure authentication and privacy.

Therefore, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to modify Chandler's system wherein speech

differentiation module is adapted to use speech biometric, as taught by Skerpac, for

robust security and intuitive privacy schemes and for protection from unauthorized users

(column 6, paragraph 0053).

9.   **Claims 6-7, 9-10, 26-27 and 29-30** are rejected under 35 U.S.C. 103(a) as being

unpatentable over Chandler in view of Arnold et al. (PGPUB 2003/0182131), hereinafter

Arnold.

Regarding **claims 6 and 26**, Chandler discloses a data mining system, but does

not specifically teach a system wherein said speech recognition module is adapted to

identify a topic with respect to which the speakers are interacting, and to employ a

focused language model to assist in speech recognition based on the topic.

Arnold teaches a system wherein said speech recognition module is adapted to

identify a topic with respect to which the speakers are interacting, and to employ a

focused language model to assist in speech recognition based on the topic (topic;

column 5, paragraphs 0061-0066 with column 6, paragraphs 0080-0082), to allow a

user to carry out informational and transactional tasks.

Therefore, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to modify to modify Chander's system, wherein said

speech recognition module is adapted to identify a topic with respect to which the

speakers are interacting, and to employ a focused language model to assist in speech recognition based on the topic, as taught by Arnold, to allow a user to initiate and drive the conversation with a gently guiding process to a quick resolution (column 3, paragraph 0036).

Regarding **claims 7 and 27**, Chandler discloses a data mining system, but does not specifically teach a system wherein said speech recognition module is adapted to receive an explicit topic selection from one of the speakers.

Arnold teaches a system wherein said speech recognition module is adapted to receive an explicit topic selection from one of the speakers (topic; column 5, paragraphs 0061-0066 with column 6, paragraphs 0080-0082), to allow a user to carry out informational and transactional tasks.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify to modify Chander's system wherein said speech recognition module is adapted to receive an explicit topic selection from one of the speakers, as taught by Arnold, to allow a user to initiate and drive the conversation with a gently guiding process to a quick resolution (column 3, paragraph 0036).

Regarding **claims 9 and 29**, Chandler discloses a data mining system, but does not specifically teach a system wherein said speech recognition module is adapted to identify a predetermined topic associated with an electronic form selected by call center personnel.

Arnold teaches a system wherein said speech recognition module is adapted to identify a predetermined topic associated with an electronic form selected by call center

personnel (topic; column 5, paragraphs 0061-0066 with column 6, paragraphs 0080-0082), to allow a user to carry out informational and transactional tasks.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify to modify Chander's system wherein said speech recognition module is adapted to identify a predetermined topic associated with an electronic form selected by call center personnel, as taught by Arnold, to allow a user to initiate and drive the conversation with a gently guiding process to a quick resolution (column 3, paragraph 0036).

Regarding **claims 10 and 30**, Chandler discloses a data mining system, but does not specifically teach a system wherein said speech recognition module is adapted to extract at least one keyword from a speech recognition result of at least one of the interacting speakers, and to identify a predetermined topic based on the keyword.

Arnold teaches a system wherein said speech recognition module is adapted to extract at least one keyword from a speech recognition result of at least one of the interacting speakers, and to identify a predetermined topic based on the keyword (topic; column 5, paragraphs 0061-0066 with column 6, paragraphs 0080-0082), to allow a user to carry out informational and transactional tasks.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify to modify Chander's system wherein said speech recognition module is adapted to extract at least one keyword from a speech recognition result of at least one of the interacting speakers, and to identify a predetermined topic based on the keyword, as taught by Arnold, to allow a user to .

initiate and drive the conversation with a gently guiding process to a quick resolution

(column 3, paragraph 0036).

10.   **Claims 8 and 28** are rejected under 35 U.S.C. 103(a) as being unpatentable

over Chandler in view Arnold, as applied to claim 7 above, and in further view of Suhm

et al. (USPN 6,823,054), hereinafter Suhm.

Regarding **claims 8 and 28** Chandler in view of Arnold discloses a data mining

system, but does not specifically teach a system wherein said speech recognition

module is adapted to prompt a speaker corresponding to a call center customer to

explicitly select one of a plurality of predetermined topics by pressing a corresponding

button of a telephone keypad.

Suhm discloses a system wherein said speech recognition module is adapted to

prompt a speaker corresponding to a call center customer to explicitly select one of a

plurality of predetermined topics by pressing a corresponding button of a telephone

keypad (touch-tome; column 1, lines 21-34 and column 10, lines 12-21 and column 16,

lines 12-21), to provide service efficiently.

Therefore, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to modify Chandler in view of Arnold's system wherein

said speech recognition module is adapted to prompt a speaker corresponding to a call

center customer to explicitly select one of a plurality of predetermined topics by pressing

a corresponding button of a telephone keypad, as taught by Suhm, to allow the user to

distinctively select and abruptly select their choice so that the system understand.

11.   **Claims 12 and 22** are rejected under 35 U.S.C. 103(a) as being unpatentable

over Chandler in view of De Bellis et al. (USPN 7,188,100), hereinafter referenced as

De Bellis.

Regarding **claims 12 and 32**, Chandler discloses a data mining system, but does

not specifically teach a system wherein said speech recognition module is adapted to

extract at least one keyword from a speech recognition result of the first speaker, and to

supplement a constraint list used in recognizing speech of the second speaker based

on the keyword extracted from the speech recognition result of the first speaker.

De Bellis discloses a system wherein said speech recognition module is adapted

to extract at least one keyword (keyword) from a speech recognition result of the first

speaker, and to supplement a constraint list (list of constraint) used in recognizing

speech of the second speaker based on the keyword extracted from the speech

recognition result of the first speaker (column 15, line 61 – column 16, line 4), to

organize data.

Therefore, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to modify Chandler's method wherein said speech

recognition module is adapted to extract at least one keyword from a speech recognition

result of the first speaker, and to supplement a constraint list used in recognizing

speech of the second speaker based on the keyword extracted from the speech

recognition result of the first speaker, as taught by De Bellis, to provide an intuitive

means for accessing or obtain information about data in the database without having to

know anything about the database structure (column 2, lines 44-49).

12.   **Claims 13 and 33** are rejected under 35 U.S.C. 103(a) as being unpatentable

over Chandler in view Basson et al. (USPN 6,996,526), hereinafter referenced as

Basson.

Regarding **claims 13 and 33**, Chandler discloses a data mining system, but does

not specifically teach a system wherein said speech recognition module is adapted to

extract at least one keyword from a speech recognition result of the first speaker, and to

rescore recognition candidates generated during recognition of speech of the second

speaker based on the keyword extracted from the speech recognition result of the first

speaker.

Basson teaches a system wherein said speech recognition module (speech

recognition) is adapted to extract at least one keyword (word) from a speech recognition

result of the first speaker, and to rescore (score) recognition candidates generated

during recognition of speech of the second speaker based on the keyword extracted

from the speech recognition result of the first speaker (column 1, lines 46-67 with

column 3, lines 3-33 and column 4, line 42 – column 5, line 35 with column 6, lines18-

33), to transcribe speech of a number of participants.

Therefore, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to modify Chandler's system wherein said speech

recognition module is adapted to extract at least one keyword from a speech recognition

result of the first speaker, and to rescore recognition candidates generated during

recognition of speech of the second speaker based on the keyword extracted from the

speech recognition result of the first speaker, as taught by Basson, to provide an

improve speech recognition system that can identify a plurality of speakers that are

participating (column 1, lines 15-42).

13.   **Claims 14-15 and 24-25** are rejected under 35 U.S.C. 103(a) as being

unpatentable over Chandler in view Boguraev et al. (USPN 6,973,428), hereinafter

Boguraev.

Regarding **claims 14 and 34**, Chandler discloses a data mining system, but does

not specifically teach a system wherein said speech recognition module is adapted to

detect interruption of speech of one speaker by speech of another speaker, and to

employ the interruption as context in a language model utilized to assist in recognizing

speech of the second speaker.

Boguraev discloses a system wherein said speech recognition module is adapted

to detect interruption (interruptions) of speech of one speaker by speech of another

speaker, and to employ the interruption as context in a language model (language

model) utilized to assist in recognizing speech of the second speaker (column 2, lines 24-51), to overcome poor transcription.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Chandler's system wherein said speech recognition module is adapted to detect interruption of speech of one speaker by speech of another speaker, and to employ the interruption as context in a language model utilized to assist in recognizing speech of the second speaker, as taught by Boguraev, to overcome poor transcription since conversations are informal (column 2, lines 24-55).

Regarding **claims 15 and 35** Chandler discloses a data mining system, but does not specifically teach a system wherein said speech recognition module is adapted to detect an interruption of speech of one speaker by speech of another speaker, and to record an instance of the interruption as mined speech data.

Boguraev discloses a system wherein said speech recognition module (speech recognition) is adapted to detect an interruption of speech of one speaker by speech of another speaker, and to record an instance of the interruption as mined speech data (record interruption; column 2, lines 24-51 with column 3, line 46 – column 4, line 67), to overcome poor transcription.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Chandler's system wherein said speech recognition module is adapted to detect an interruption of speech of one speaker by speech of another speaker, and to record an instance of the interruption as mined

speech data, as taught by Boguraev, to overcome poor transcription since conversations are informal (column 2, lines 24-55).

14.   **Claims 16-20 and 36-40** are rejected under 35 U.S.C. 103(a) as being unpatentable over Chandler in view Suhm.

Regarding **claims 16 and 36**, Chandler discloses a data mining system, but does not specifically teach a system wherein said speech recognition module is adapted to extract at least one keyword from a speech recognition result of at least one of the interacting speakers, to identify a frustration phrase associated with the keyword, and to record an instance of the frustration phrase as mined speech data.

Suhm discloses a system wherein said speech recognition module is adapted to extract at least one keyword from a speech recognition result of at least one of the interacting speakers, to identify a frustration phrase (frustration; column 20, lines 49-58) associated with the keyword, and to record an instance of the frustration phrase as mined speech data (end-to-end recordings; column 6, lines 21-34 with column 20, lines 15-59), to provide customer service efficiently.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Chandler's system wherein said speech recognition module is adapted to extract at least one keyword from a speech recognition result of at least one of the interacting speakers, to identify a frustration phrase associated with the keyword, and to record an instance of the frustration phrase as

mined speech data, as taught by Suhm, to detect specific quality aspects (column 20, lines 49-58).

Regarding **claims 17 and 37**, Chandler discloses a data mining system, but does not specifically teach wherein said speech recognition module is adapted to extract at least one keyword from a speech recognition result of at least one of the interacting speakers, to identify a polity expression associated with the keyword, and to record an instance of the polity expression as mined speech data.

Suhm discloses a system wherein said speech recognition module is adapted to extract at least one keyword from a speech recognition result of at least one of the interacting speakers, to identify a polity (polite; column 20, lines 49-58) expression associated with the keyword, and to record an instance of the polity expression as mined speech data (end-to-end recordings; column 6, lines 21-34 with column 20, lines 15-59), to provide customer service efficiently.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Chandler's system wherein said speech recognition module is adapted to extract at least one keyword from a speech recognition result of at least one of the interacting speakers, to identify a polity expression associated with the keyword, and to record an instance of the polity expression as mined speech data, as taught by Suhm, to detect specific quality aspects (column 20, lines 49-58).

Regarding **claims 18 and 38** Chandler discloses a data mining system, but does not specifically teach wherein said speech recognition module is adapted to extract at

least one keyword from a speech recognition result of at least one of the interacting

speakers, to identify a context corresponding to at least one of a topic, complaint,

solution, and resolution associated with the keyword, and to record an instance of the

context as mined speech data

Suhm discloses a system wherein said speech recognition module is adapted to

extract at least one keyword from a speech recognition result of at least one of the

interacting speakers, to identify a context corresponding to at least one of a topic (topic),

complaint, solution, and resolution associated with the keyword, and to record an

instance of the context as mined speech data (column 20, lines 15-59), to provide

customer service efficiently.

Therefore, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to modify Chandler's system wherein said speech

recognition module is adapted to extract at least one keyword from a speech recognition

result of at least one of the interacting speakers, to identify a context corresponding to

at least one of a topic, complaint, solution, and resolution associated with the keyword,

and to record an instance of the context as mined speech data, as taught by Suhm, to

detect specific quality aspects (column 20, lines 49-58).

Regarding **claims 19 and 39**, Chandler discloses a data mining system, but does

not specifically teach a system wherein said speech recognition module is adapted to

identify a number of interaction turns based on a shift in interaction from speaker to

speaker, and to record the number of turns as mined speech data.

Suhm discloses a system wherein said speech recognition module is adapted to identify a number of interaction turns based on a shift in interaction from speaker to speaker (repeatedly request), and to record the number of turns as mined speech data (column 15, lines 8-18), to provide customer service efficiently.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Chandler's system wherein said speech recognition module is adapted to identify a number of interaction turns based on a shift in interaction from speaker to speaker, and to record the number of turns as mined speech data, as taught by Suhm, to improve the call flow and to monitor the call (column 15, lines 8-18).

Regarding **claims 20 and 40**, Chandler discloses a data mining system, but does not specifically teach a system comprising a quality management subsystem employing mined speech data as feedback to at least one of a call center quality management process and a consumptible quality management process.

Suhm discloses a system comprising a quality management subsystem employing mined speech data as feedback to at least one of a call center quality management process (marked) and a consumptible quality management process (quality; column 20, lines 15-59), to provide customer service efficiently.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Chandler's system comprising a quality management subsystem employing mined speech data as feedback to at least one of a

call center quality management process and a consumptible quality management

process, as taught by Suhm, to detect specific quality aspects (column 20, lines 49-59).

Conclusion

15.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Jakieda R. Jackson whose telephone number is 571-

272-7619. The examiner can normally be reached on Monday, Tuesday and Thursday

7:30 a.m. to 5:00p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, David Hudspeth can be reached on 571-272-7843. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

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system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JRJ
August 2, 2007

DAVID HUDSPETH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600